

# El Paso Stormwater System

Progress Update  
March 2009

# Stormwater Utility

## Efficient Operations

- **Before:**
  - No stormwater system emphasis because of other priorities
- **Now:**
  - Resources committed to operations and maintenance of stormwater system
  - Master Plan in place to fix stormwater infrastructure

# The Size of the Challenge

EPWU Stormwater Facilities	
Dams	39
Pump stations	16
Detention/Retention ponds	275
Channels	69 miles
Agricultural drains	39 miles
Storm drain conduits	57 miles
Storm drain inlets	5,000

Size of the  
Challenge

# Deferred Maintenance



Size of the  
Challenge

# Deferred Maintenance



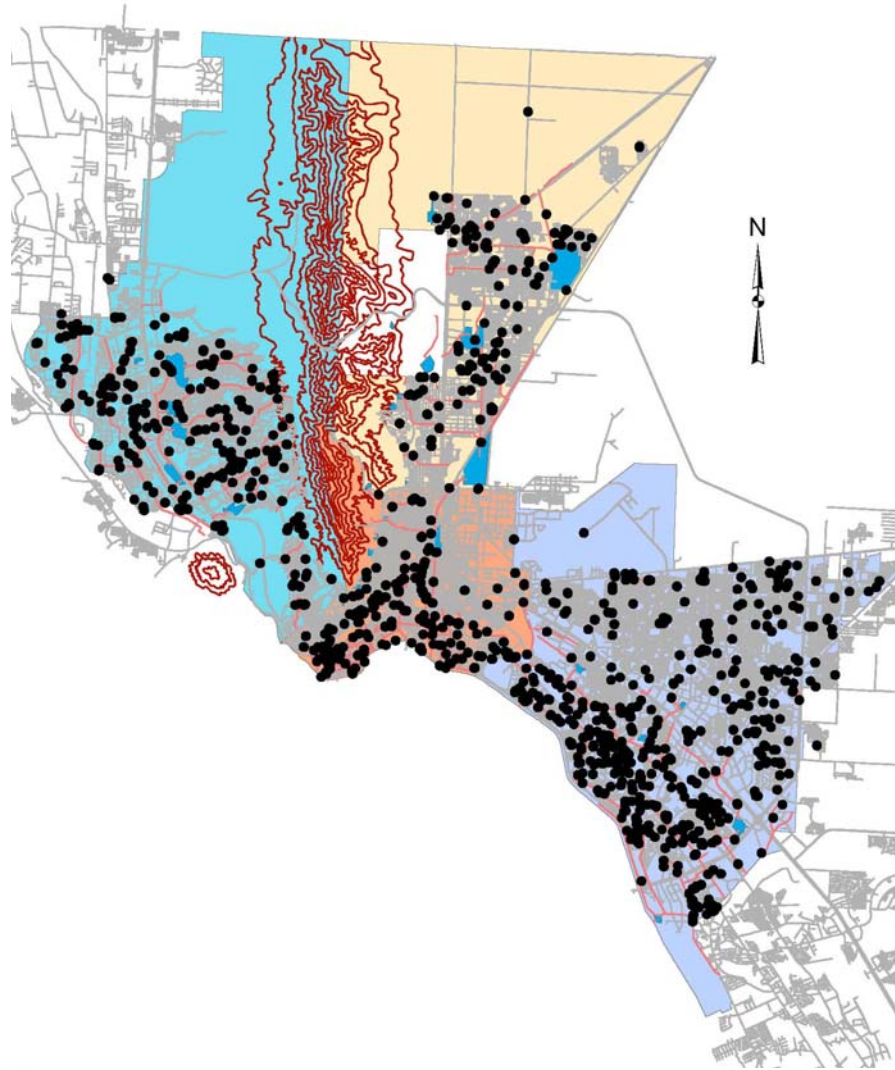
# Signs of Progress

- **Funding:** Because it now has a dedicated source of funding, the system is seeing improvements that would not have been occurring otherwise
- **Maintenance:** aggressive “catch up” activities
- **Capital Improvements:**
  - Short-term
  - Long term: Stormwater Master Plan development



# Stormwater Maintenance Projects

(1,175 completed as of 2/16/09)



# Before: Pershing Dam





# After: Pershing Dam



# The Wet Commute on I-10



# Cebada Stormwater Pump Station Improvements Project



# Cebada Pump Station Improvements

- 6 pumps rehabilitated or replaced
- New electrical system
- Automatic operation
- Monitored remotely

Original City of EP Bid price: **\$4,807,000**

EPWU Construction Cost: **\$2,080, 638**



Signs of  
Progress

# Before: Stephanie Basin





Signs of  
Progress

# After: Stephanie Basin



# Future Capital Projects

## Stormwater Master Plan

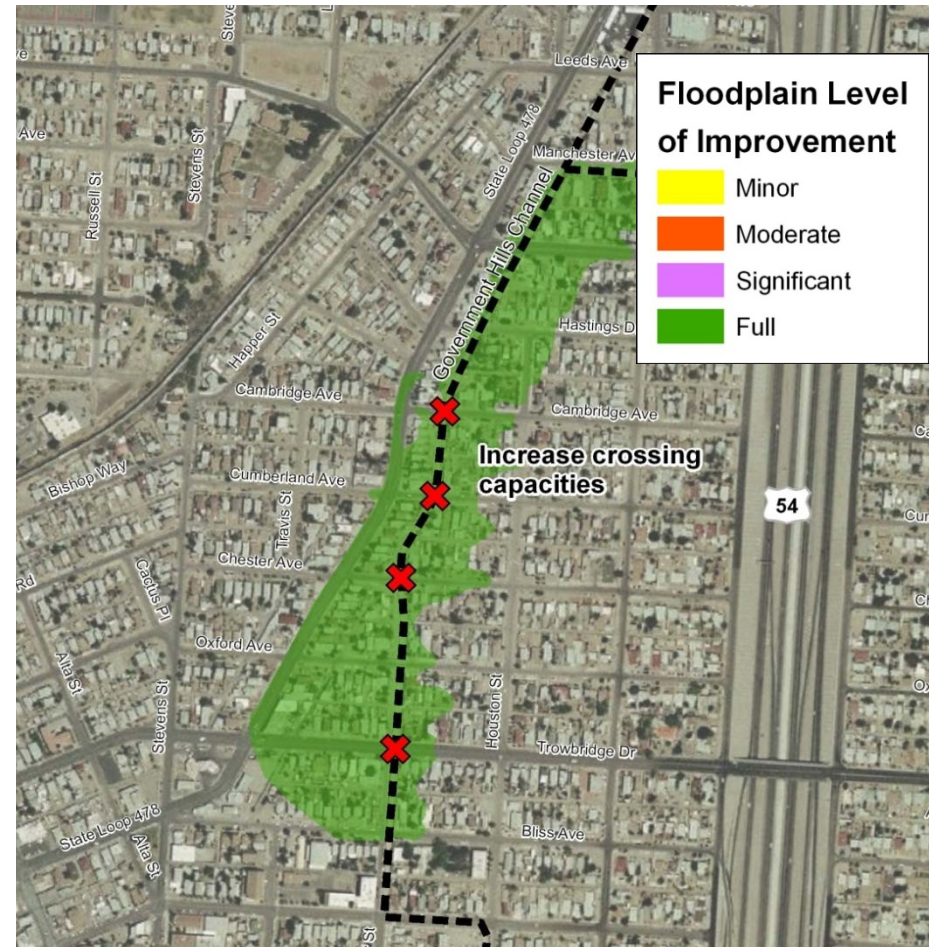
- Engineering firm developed Master Plan
- Stormwater Master Plan Community Advisory Committee provided input on priority list for first 3 years based on public safety priority and other community values
- City Council will approve in March 2009
- Design starts immediately with construction to start in fall 2009

# Capital Project Locations



# Copia/Hwy 54 (CE1&2)

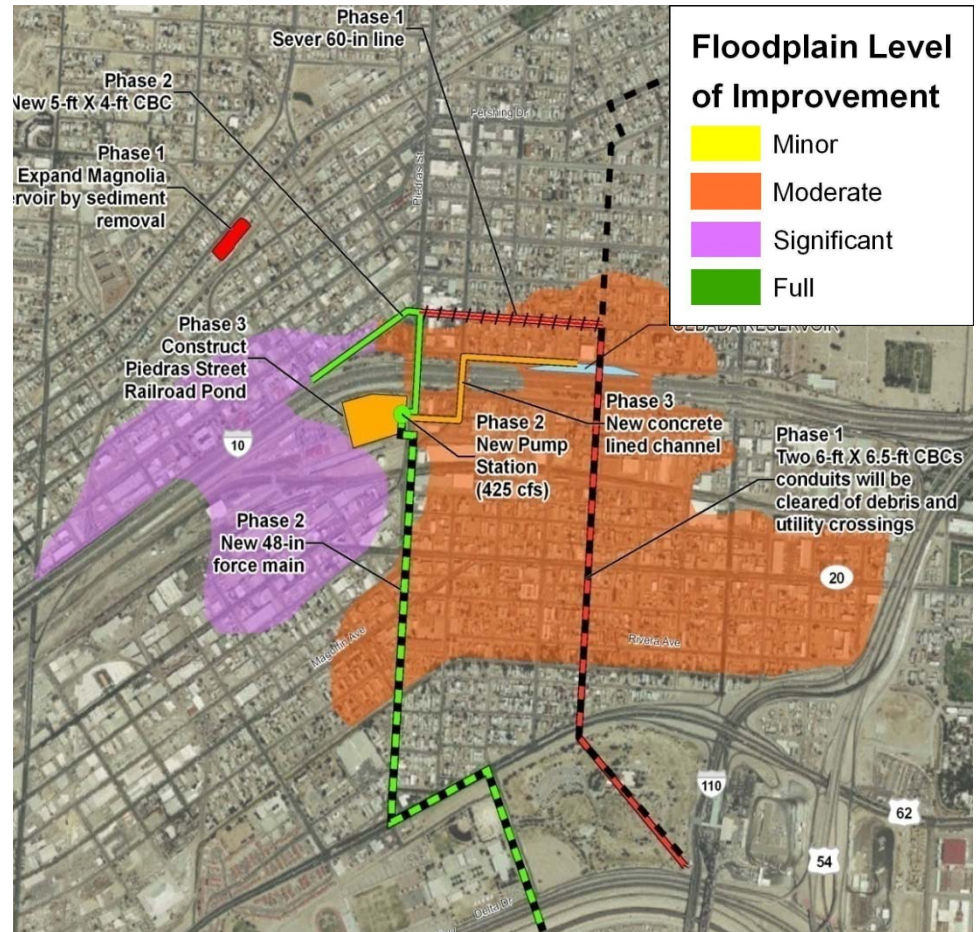
- Level of Protection
  - 10 yr to 100 yr
- Total Project Cost
  - \$850,000 (CE1)
  - \$2,000,000 (CE2)
- Number of Properties Improved
  - 442
- Residential Value Improved
  - \$14,445,000
- Commercial/Industrial Improved
  - \$1,059,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding





# Central/IH10 (CE4)

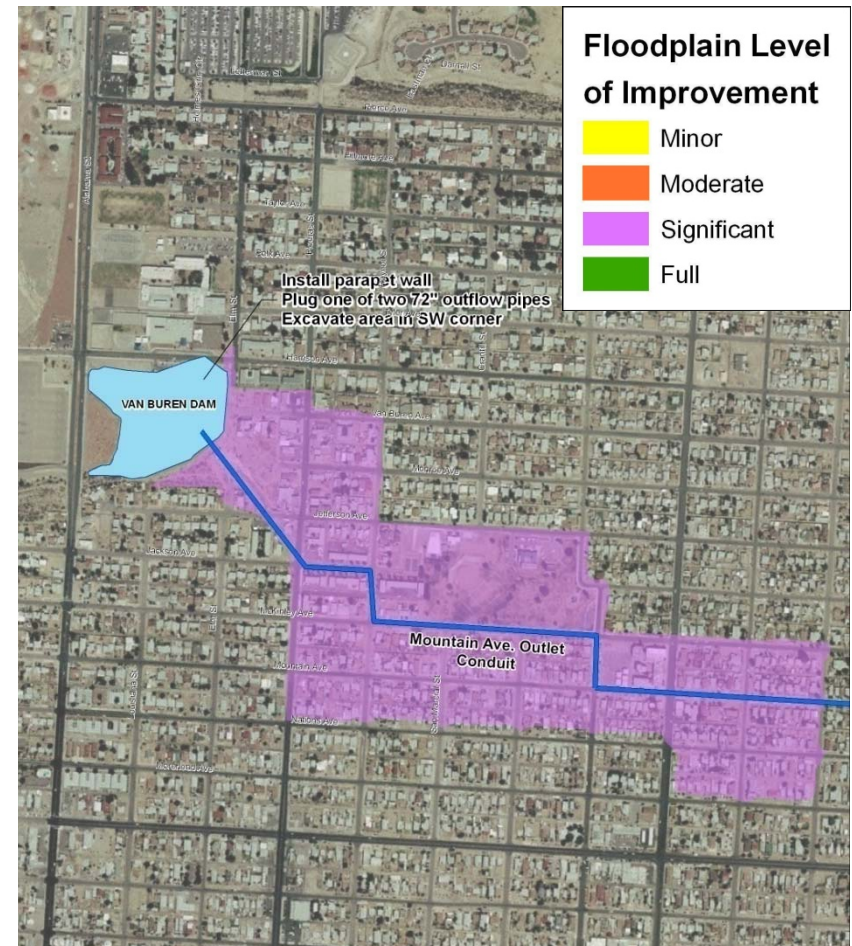
- Level of Protection
  - 10 yr to 20 yr (Phase 1)
  - 20 yr to 100 yr (Phase 2)
- Total Cost
  - \$4,740,000 (Phase 1)
  - \$24,250,000 (Phase 2)
- Number of Properties Improved
  - 1,276
- Residential Value Improved
  - \$38,361,000
- Commercial/Industrial Improved
  - \$89,657,000
- Significant Benefits
  - Reduced flooding on IH10
  - Reduced arterial flooding
  - Reduced property flooding





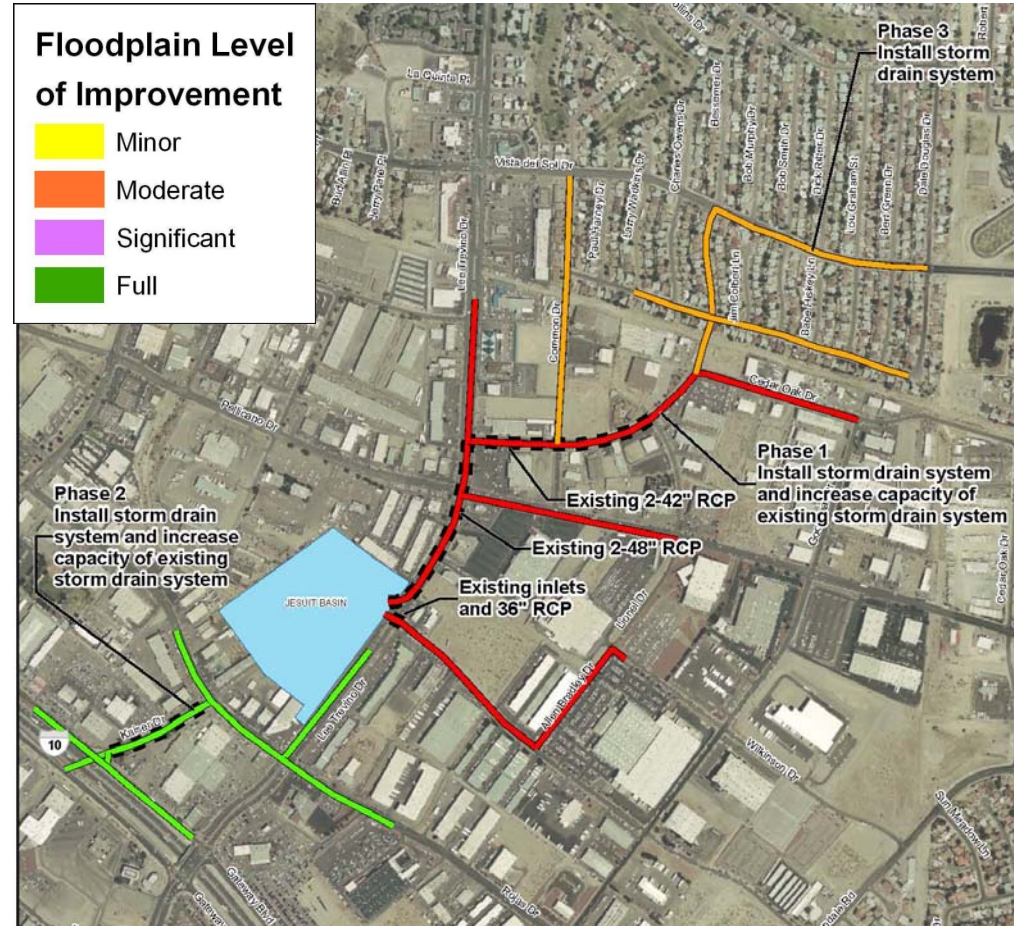
# Van Buren Dam

- Level of Protection
  - Upgraded to TCEQ standards.
- Total Cost
  - \$2,510,000
- Number of Properties Improved
  - 368
- Residential Value Improved
  - \$26,756,681
- Commercial/Industrial Improved
  - \$6,074,000
- Significant Benefits
  - Upgrade Van Buren Dam to meet TCEQ standards
  - Reduce downstream flooding



# Lee Trevino

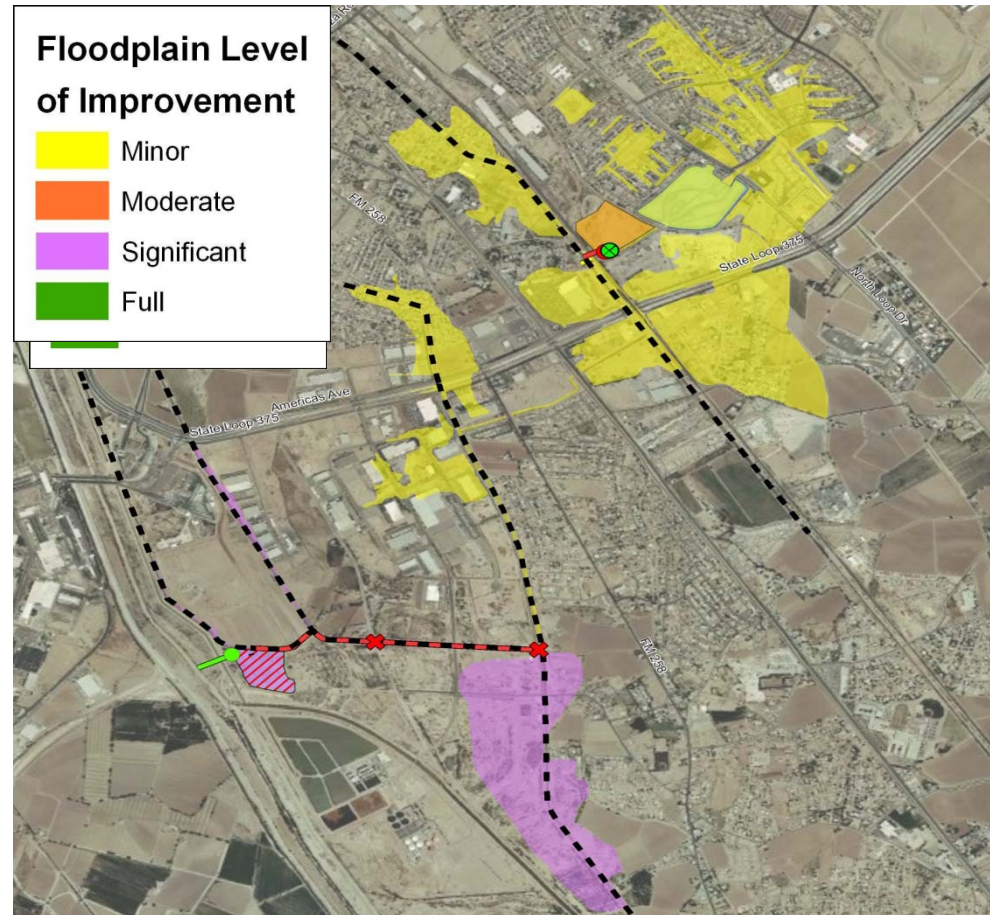
- Level of Protection
  - 2 yr to 80 yr
- Total Project Cost
  - \$5,000,000 (Phase 1a)
- Number of Properties Improved
  - 0
- Residential Value Improved
  - \$0
- Commercial/Industrial Improved
  - \$0
- Significant Benefits
  - Reduced flooding on Lee Trevino
  - Reduced property flooding





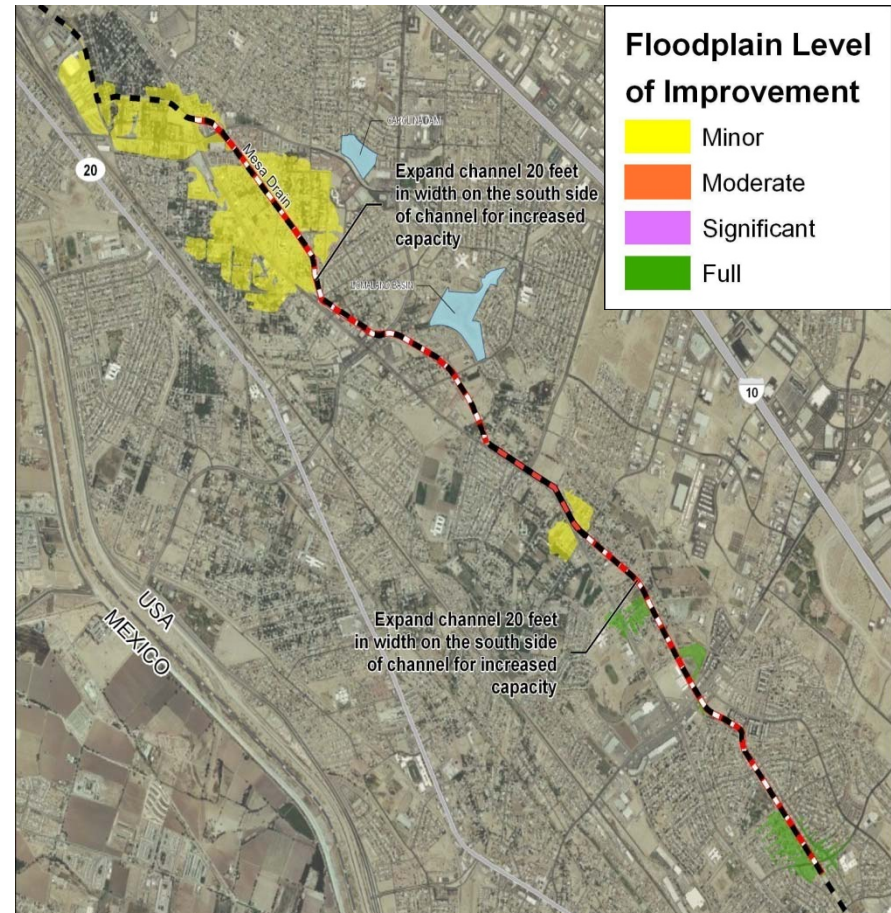
# Mission Valley/Americas (MV5)

- Level of Protection
  - 10 yr to 100 yr
- Total Project Cost
  - \$6,000,000
- Number of Properties Improved
  - 1,083
- Residential Value Improved
  - \$64,846,000
- Commercial/Industrial Improved
  - \$111,807,000
- Significant Benefits
  - Initial phase of a project to reduce flooding of large areas in Mission Valley



# Mission Valley/Lomaland (MV10)

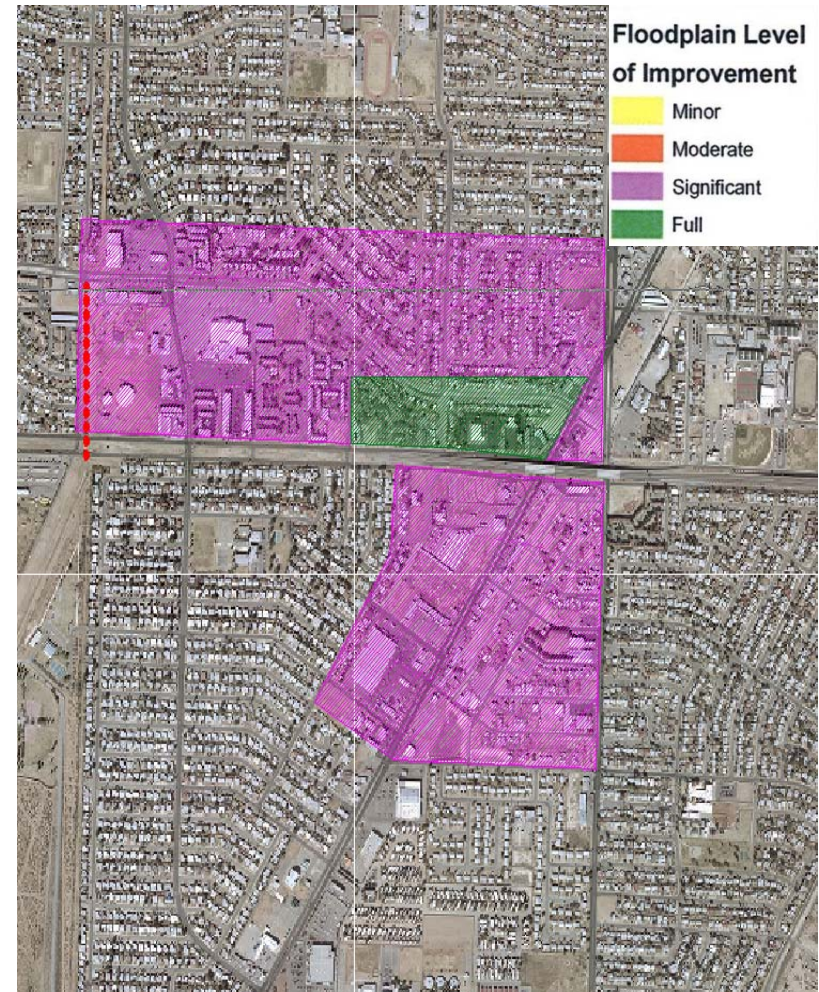
- Level of Protection
  - 10 yr to 100 yr
- Total Project Cost
  - \$4,500,000 (\$3,000,000 in CIP yr 1 & \$1,500,000 in CIP yr 3)
- Number of Properties Improved
  - 947
- Residential Value Improved
  - \$59,855,000
- Commercial/Industrial Improved
  - \$39,814,000
- Significant Benefits
  - Reduce property flooding
  - Reduce arterial flooding
  - Potential for linear parks, trails





# Electric Street From Fairbanks to Transmountain (Alcan Flooding Mitigation)

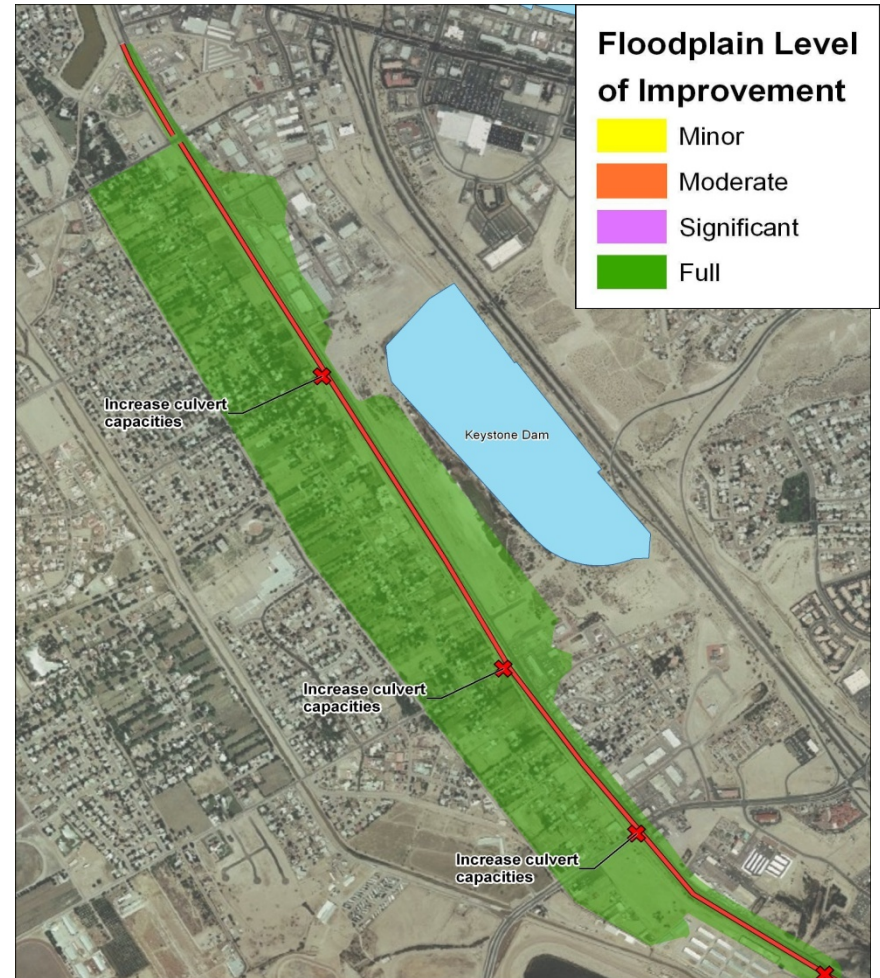
- Level of Protection
  - 20 yr to 100 yr
- Total cost
  - \$1,000,000
- Number of Properties Improved
  - 507
- Residential Value Improved
  - \$89,500,000
- Commercial/Industrial Improved
  - \$43,000,000
- Significant Benefits
  - Reduce arterial flooding
  - Reduce property flooding





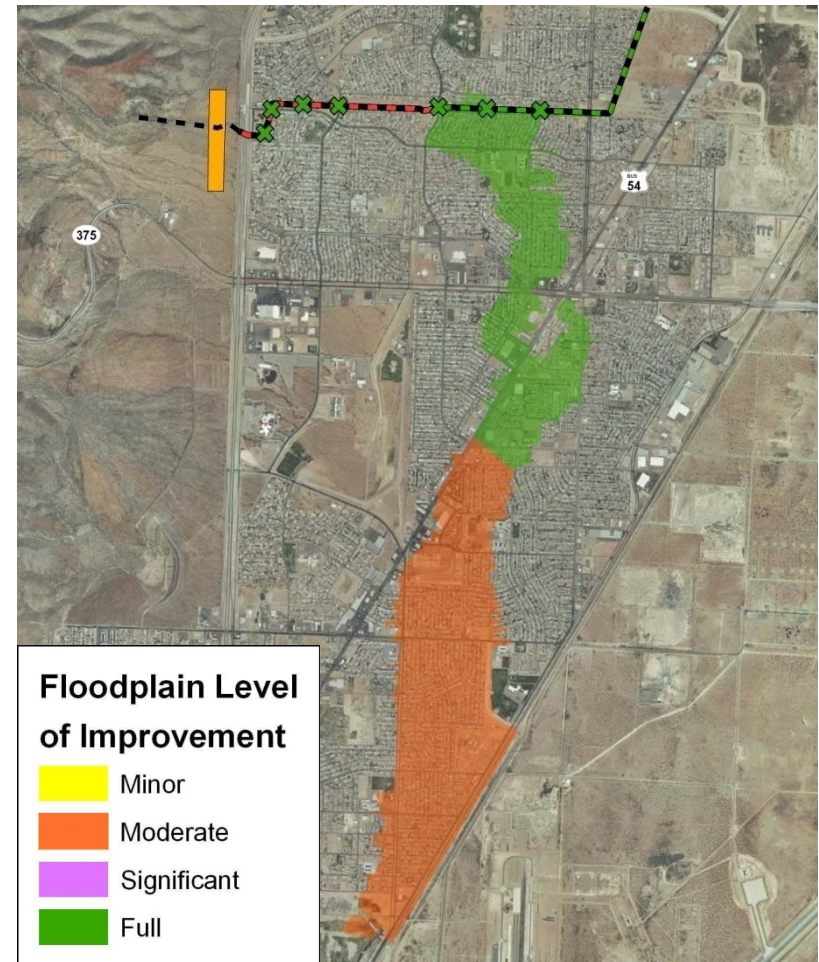
# Doniphan – Mesa to Sunland

- Level of Protection
  - 2 yr to 100 yr
- Total Project Cost
  - \$2,510,000
- Number of Properties Improved
  - 439
- Residential Value Improved
  - \$36,489,000
- Commercial/Industrial Improved
  - \$23,429,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding
  - Potential for linear park, trails



# Sun Valley to Ft. Bliss Golf Course

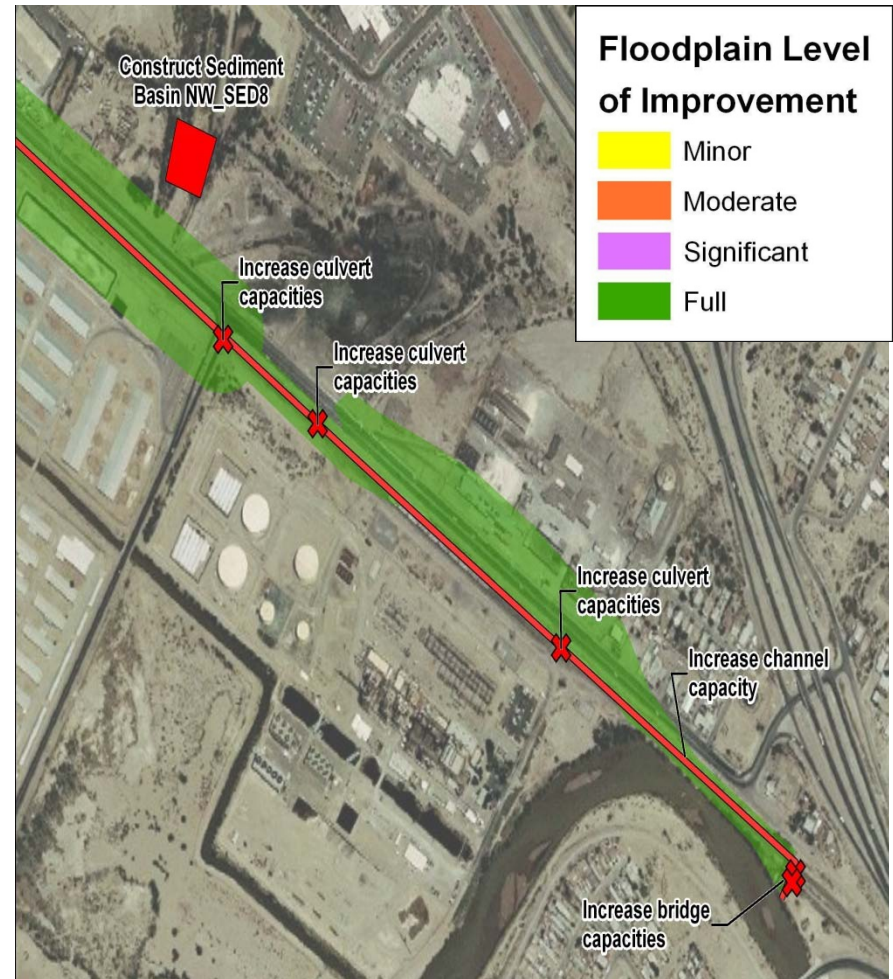
- Level of Protection
  - 5 yr to 100 yr
- Total Cost
  - \$9,513,000
- Number of Properties Improved
  - 4,180
- Residential Value Improved
  - \$316,437,000
- Commercial/Industrial Improved
  - \$113,030,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding





# Doniphan – Sunland to Paisano (NW2)

- Level of Protection
  - 2 yr to 100 yr
- Total Project Cost
  - \$5,000,000
- Number of Properties Improved
  - 33
- Residential Value Improved
  - \$104,000
- Commercial/Industrial Improved
  - \$7,056,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding
  - Potential for linear park, trails
  - Reduces maintenance



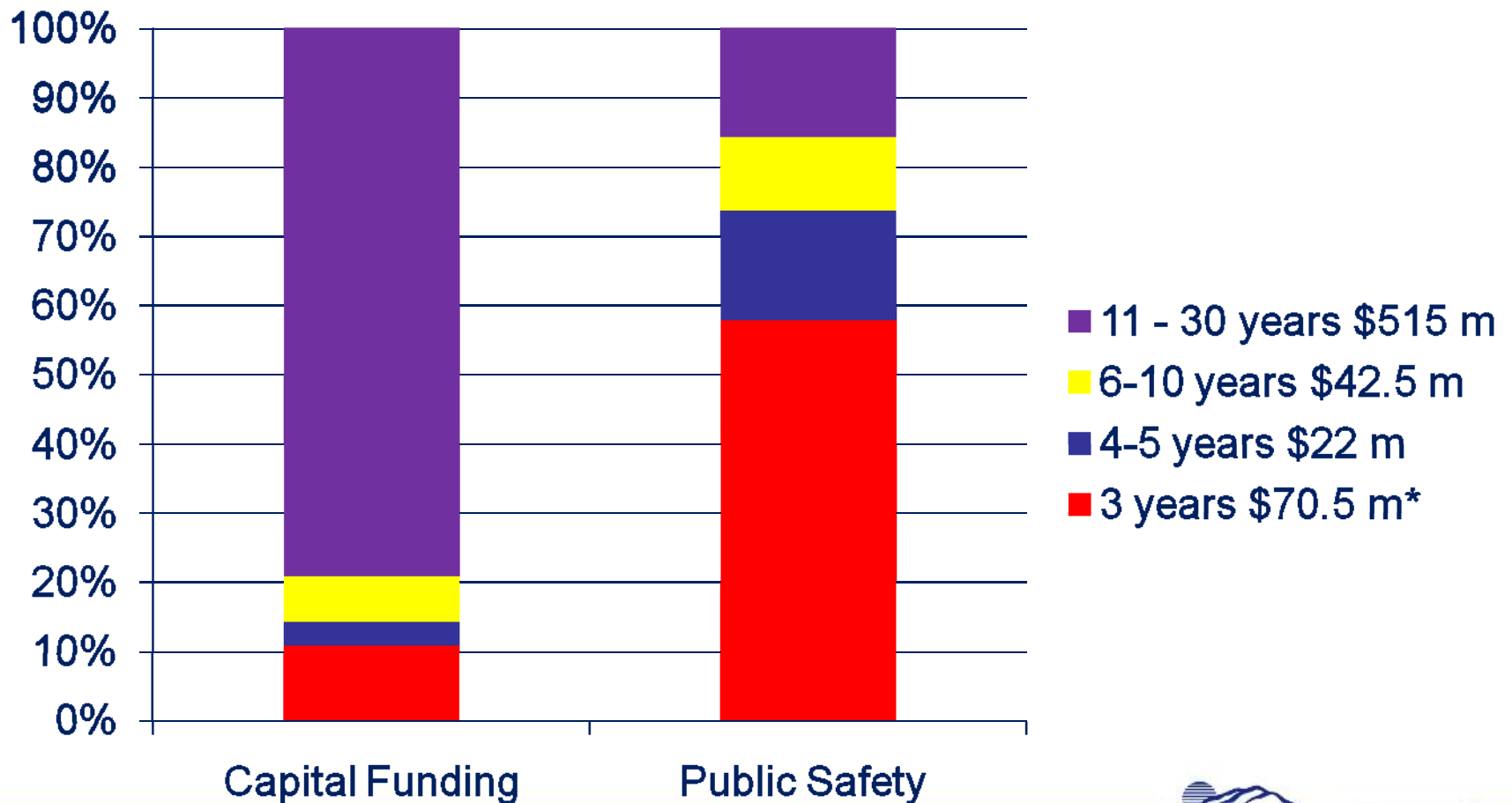
# **Protection of Property Years 1-3**

Residential property - \$647 million

Commercial property - \$435 million

**Total Value of Property Affected : \$1.1 billion**  
**Project Costs: \$67.5 million**

# Capital Program vs. Flood Risk Improvement Total \$650 million



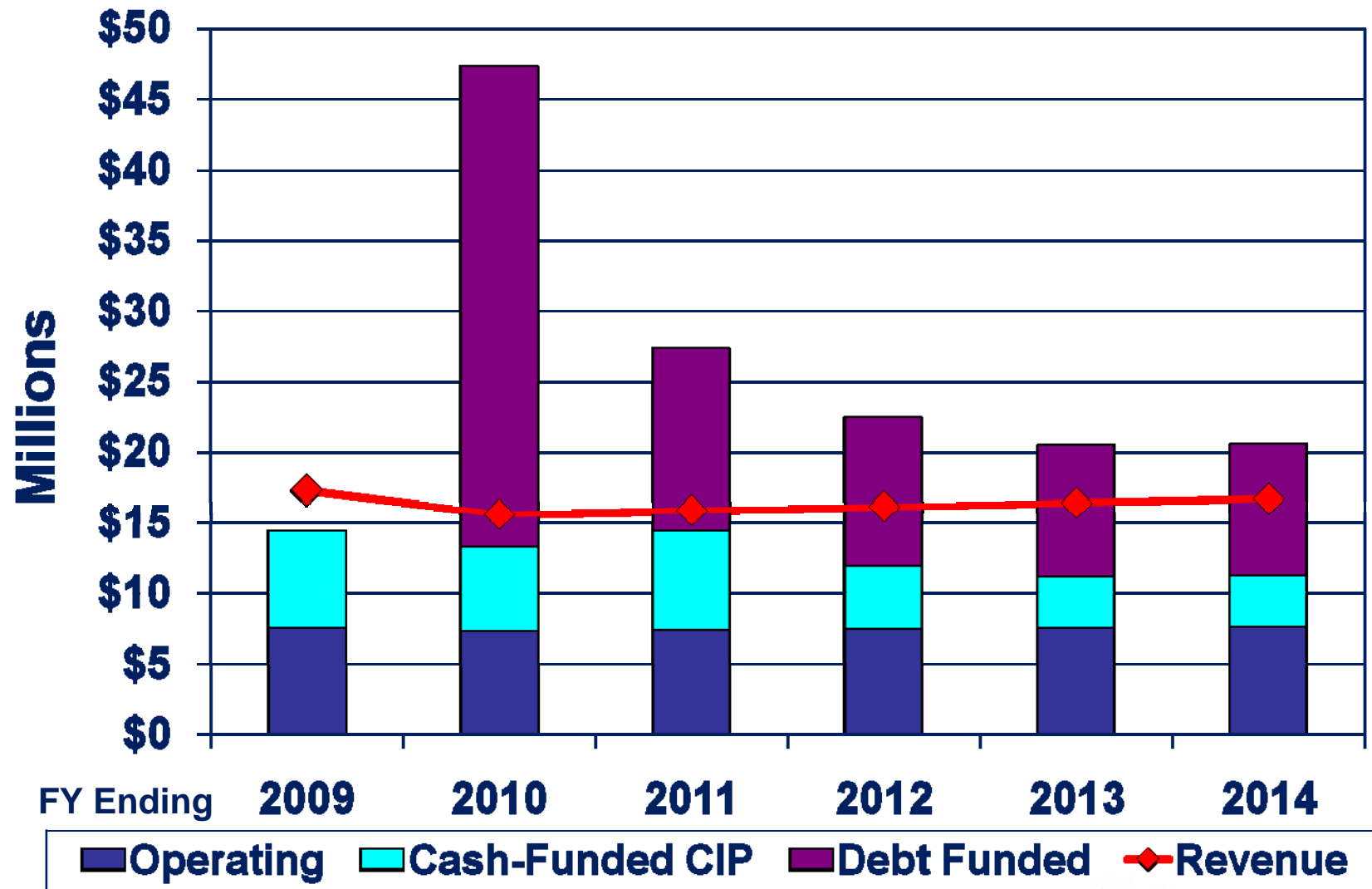
\*Does not include Open Space & Park/Ponds



# Stormwater Open Space Land

Location	Acreage
Enchanted Hills Basin	172
Cloudview Arroyo	18
Mesa Drain	105
NE Channel 2	30
Silver Springs Dam	34
Mesa Hills Channel	6
Doniphan Ditch	11
Featherlake II	23
Johnson Basin	4
Franklin Mountains	227
Westside Master Plan	619
<b>Total</b>	<b>1,249</b>

# Projected Revenue Requirements



# Prioritization Process

## Allocated Funding

CIP Year	Major Project Funds	Localized Flooding	Open Space 10% appropriation	Total Funding
FY 08-09	0	0	\$1.7M	\$1.7 M
FY 09-10	\$37.5 M	\$1 M	\$1.5 M	\$40 M
FY 10-11	\$17.5 M	\$1 M	\$1.5 M	\$20 M
FY 11-12	\$12.5 M	\$1 M	\$1.5 M	\$15 M
Total	\$67.5 M	\$3 M	\$6.2 M	\$76.7 M



# Capital Project Funding

CIP Year	Debt Funding	Cash Funding	Total Budget
FY 08-09 10% open space funding appropriated	0	\$1.7 M	\$1.7 M
FY 09-10	\$34 M	\$6 M	\$40 M
FY 10-11	\$13 M	\$7 M	\$20 M
FY 11-12	\$10.5 M	\$4.5 M	\$15 M
Total	\$57.5 M	\$19.2 M	\$76.7 M

# Stormwater Charge for Residential

Residential Category	
Small	\$1.49
Typical	\$2.97
Large	\$5.94

# Stormwater Charge for Non-Residential

Equivalent Residential Area (2,000 sq. ft.)	\$3.03
Schools and Social Svc Nonprofits 10% of fee effective March 1, 2009	\$0.30
Fast Food Restaurant Example 11,123 sq. ft. (approx. ¼ acre)	\$16.85/month
Car Dealership Example 176,068 sq. ft. (approx. 4 acres)	\$266.74/month



# Public Education



# Keep El Paso Beautiful

Vehicle fluids are the number one surface water quality problem nationwide

- Call our Stormwater Environmental Hotline at 1-877-ID-FLOWS (1-877-433-5697) if you see illegal dumping in channels and culverts.